

1.2 PROJECT DESCRIPTION

This IMR is being prepared to seek approval from FDOT Central Office for the Applicant, FDOT District 4, for the proposed improvements to the access point of I-95 at 10th Avenue North in Palm Beach County. This IMR has been developed in accordance with the FDOT Policy Statement 000-525-015: *Approval of New or Modified Access to Limited Access Highways on the State Highway System (SHS)*, FDOT Procedure Topic 525-030-160: *New or Modified Interchanges adding or modifying interchange access to limited access facilities on Florida's SHS*, *Interchange Access Request User's Guide (IARUG)*, and the FDOT Procedure Topic 525-030-120 *Project Traffic Forecasting*.

The findings of the overall engineering and environmental evaluation for this project will be documented in the Type 2 Categorical Exclusion and Preliminary Engineering Report for this PD&E study.

The proposed improvements will include operational and safety improvements to the Interchange. The project will also include improvements to sidewalks, ADA ramps, guide signs, and designated bicycle lanes.

This IMR will document the existing and future conditions in the study area, the analysis of future conditions, ramps and merge/diverge junctions between the interstate mainline and the interchange within the project limits including 10th Avenue North northbound and southbound ramps, Barnett Drive and North A Street intersections.

1.3 PURPOSE AND NEED

The purpose of the project is to improve the local and regional transportation network while simultaneously providing enhanced multimodal interrelationships at the I-95 and 10th Avenue North interchange. Further consideration for the need of this project includes improving capacity and transportation demand, improving safety through design year and also enhancing emergency evacuation and response times. The project aims at improving the capacity and mobility through the study interchange as traffic increases, thereby increasing the amount of congestion due to the anticipated increase in the population of Palm Beach County from 1,471,150 in 2017 to 1,715,300 in 2040 (*Source: 2019 PBC Population Allocation Model, PAPA, Building/Zoning Divisions*), representing an increase of 17% approximately.

According to the Future Land Use Plan for the City of Lake Worth Beach, the area will mainly remain residential with mixed-used and high-density residential and pockets of public and public recreating open space. As the population of the City and the County continues to increase, traffic will continue to grow, thereby, increasing the amount of congestion.

The *Interchange Concept Development Report for I-95 (SR 9) Interchange at 10th Avenue North, Palm Beach County*, dated June 2014, showed that if no improvements are made in the study interchange, it is forecasted that by 2040, for AM and PM peak hours the southbound ramps intersection along 10th Avenue North will be operating at a LOS of D and the northbound ramps intersection will be operating at a LOS of F. Therefore, long-term interchange improvements are needed to maintain

acceptable level of service through the study area, thereby, reduce delays, travel time and provide more mobility to the residents and commuters in this area along 10th Avenue North which provides east-west access in the City of Lake Worth Beach and Palm Beach County.

The proposed interchange improvements will also address pedestrian and bicycle modes and will ensure that the project corridor continues to meet mobility and safety goals as travel demands continue to grow.

The 10th Avenue North interchange with I-95 is an important component of the FDOT's SIS in Palm Beach County and provides a key transportation element. This interchange is an important connection for commuters and freight traffic in the region.

The goal of this project is to improve traffic operations at the study interchange through implementation of operational and capacity improvements that will maintain and improve mobility, improve safety, support existing and future development and enhance emergency evacuation and response times.

The need for the project is based on the following factors:

- Transportation Capacity
- Safety

1.3.1 TRANSPORTATION CAPACITY

An increase in demand on I-95 and 10th Avenue North interchange is anticipated in future due to planned growth in the area. As a result, additional traffic demand on major arterials within the study area will need to be addressed. **Table 1-1** summarizes the anticipated traffic volume increase within the study area.

Table 1-1 Forecasted Growth in Daily Traffic Volumes

Segment	Existing (2019)	Opening (2025)	Design (2045)
I-95 South of 10 th Avenue North	231,700	240,000	267,000
I-95 North of 10 th Avenue North	237,300	246,000	275,000
10 th Avenue North West of I-95	45,700	47,000	52,000
10 th Avenue North East of I-95	35,700	36,500	40,000

1.3.2 SAFETY

The Moving Ahead for Progress in the 21st Century Act, MAP-21, established national performance goals for Federal highway programs including:

- Safety - to achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- System Reliability – to improve the efficiency of the surface transportation system.